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EXAMINER	
KENNEDY, LESA M	

ART UNIT	PAPER NUMBER
2157	6

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/515,780	DAUDE ET AL.	
	Examiner	Art Unit	
	Lesa Kennedy	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 February 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12 and 14-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12 and 14-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 February 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2 and 4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This action is responsive to the application filed on February 29, 2000. Claims 1-12 and 14-19 are pending examination. Claims 1-12 and 14-19 represent a method and system directed towards selecting a web firewall in a TCP/IP network.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

   The oath or declaration is defective because:

   > It claims foreign priority benefits for Application Number 98480011.8 filed in Europe on March 5, 1999. This is not the application number for the foreign priority document included in the application.

   Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

   > The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 8 recites the limitation "said universal resource locator" (line 3) in reference to claims 1 or 3. There is insufficient antecedent basis for this limitation in the claim. For the purposes of further reviewing this claim, it will be assumed that claim 8 depends on claim 7, which refers to a "universal resource locator".

Claim 9 recites the limitation "the universal resource locator" (line 3) in reference to claims 1 or 3. There is insufficient antecedent basis for this limitation in the claim. For the purposes of further reviewing this claim, it will be assumed that claim 9 depends on claim 8, which refers to a "universal resource locator".

Claim 10 recites the limitations "the universal resource locator" and "the configuration file" (line 4) in reference to claims 1 or 3. There is insufficient antecedent basis for these limitations in the claim. For the purposes of further reviewing this claim, it will be assumed that claim 10 depends on claim 9, which refers to a "universal resource locator" and a "configuration file".

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 recites selecting the firewall server according to the Internet Protocol (IP) address. However, the claim fails to point which IP address is used. For the purposes of further reviewing this claim, it will be assumed that the firewall server is selected according to its own IP address.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ahuja et al. (U.S. Patent No. 6,175,869) in view of Ebata et al. (U.S. Patent No. 6,513,061).

Ahuja teaches the invention substantially as claimed including a client agent that intercepts a client request and routes it to a particular server in a pool of servers (see abstract).

As to claim 1, Ahuja teaches a method for dynamically selecting a server for a web client, in particular a web browser, in a Transmission Control Protocol/Internet Protocol (TCP/IP) network comprising a plurality of servers, said method comprising the steps of:

measuring performance and availability of each server using measurement probes (col. 4, line 14 – col. 5, line 45; Ahuja discloses that a client agent collects dynamic performance and availability data on each server for a client requesting information from a website); and,

dynamically selecting a server according to the performance and availability measurements (col. 5; lines 12-45; Ahuja discloses that the client agent makes routing decisions for the client request based on this dynamic performance and availability data).

Ahuja fails to teach the limitation wherein the server is a firewall server.

However, Ebata teaches a method for selecting a proxy server for access to an internet (see abstract). Ebata teaches the limitation of dynamically selecting a firewall server (col. 6, line 49 – col. 7, line 47; col. 2, lines 12-16; Ebata discloses the dynamic selection of a proxy server, based on location information and load condition of the proxy servers, for processing a client request to a target resource such as the WWW).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ahuja in view of Ebata by specifying the selection of firewalls instead of servers to protect the identification of the clients accessing a website. One would be motivated to do so to prevent unnecessary login and logout procedures for the clients.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ahuja et al. in view of Ebata et al., and further in view of Sathyanarayan et al. (U.S. Patent. No. 6,304,904).

Ahuja teaches the invention substantially as claimed including a client agent that intercepts a client request and routes it to a particular server in a pool of servers (see abstract).

As to claim 2, Ahuja teaches the method according to claim 1, wherein the step of measuring the performance and availability of each firewall server using measurement probes comprises the further step of measuring the response time needed for retrieving from a web server information, in particular web pages, through each firewall server (col.5, lines 27-45; Ahuja discloses measuring the response time for each server to retrieve a web page using probes).

Ahuja fails to teach the limitation wherein the retrieved web page is a known web page.

However, Sathyanarayan teaches a method for collecting performance statistics from a network device configured to service request form other devices (see abstract). Sathyanarayan teaches the limitation of measuring the response time needed for retrieving from a web server known information, in particular one or a plurality of known web pages (col. 6, lines 12-63; Sathyanarayan discloses a method to measure end-to-end page latency using predetermined requests specifying particular web pages to be retrieved).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ahuja in view of Sathyanarayan by measuring the response time for retrieving known web pages. One would be motivated to do to so to provide performance statistics compiled with respect to each requested web page processed by a network device. These page-level statistics would provide a greater level of performance detail needed for many applications.

Claims 3-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahuja et al. in view of Ebata, further in view of Sathyanarayan et al., and further in view of Dantressangle (U.S. Patent No. 6,446,120).

Ahuja teaches the invention substantially as claimed including a client agent that intercepts a client request and routes it to a particular server in a pool of servers (see abstract).

As to claim 3, the Ahuja teaches the method of claim 2 above.

Ahuja fails to teach the limitation of checking that the retrieved one or plurality of web pages contain one or a plurality of known keywords.

However, Dantressangle teaches a method wherein one or more virtual browsers are created for transmitting commands to test a server computer (see abstract). Dantressangle teaches the limitation of checking that the retrieved one or plurality of web pages contain one or a plurality of known keywords (col. 4, lines 27-57; Dantressangle discloses verification of HTML data retrieved from a web server).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ahuja in view of Dantressangle so as to test web servers in conjunction with typical network conditions. One would be motivated to do so to provide improved testing of web servers on the internet for the subsequent improvement in the performance of web servers.

As to claim 4, Ahuja teaches the method of claims 1 or 3 above, wherein the step of measuring the performance of each firewall server using measurement probes comprises the further step of comparing each firewall server said measured response time with previous measured response times and, determining for each firewall the degradation or the amelioration of the measured response time (col. 6, lines 11-16; Ahuja discloses giving more weight to recent data over older data when estimating a server's overall performance).

As to claim 5, the Ahuja teaches the method of claims 1 or 3 above, wherein the step of measuring the availability of each firewall server using measurement probes comprises the further step of detecting failures on each firewall server and excluding firewall servers in failure from the step of selecting a firewall server (col. 5, line 46 – col. 6, line, 8; Ahuja discloses a routing strategy in which the user may choose to have all requests routed to the most responsive servers).

As to claim 6, the Ahuja teaches the method of claims 1 or 3 above.

Ahuja fails to teach the limitation wherein the firewall server is a proxy server or a socks server.

However, Ebata teaches a method for selecting a proxy server for access to an internet (see abstract). Ebata teaches the limitation of wherein the firewall server is a proxy server (col. 6, lines 48-65; Ebata discloses the use of proxy servers for a client in a LAN to access an external WAN).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ahuja in view of Ebata so as to use proxy servers as firewall servers. One would be motivated to do so since a proxy server is a gateway to establish communications between an internal client and an external network prohibited by a firewall.

As to claim 7, the Ahuja teaches the method of claims 1 or 3 above.

Ahuja fails to teach the limitation wherein the method further comprises the steps of processing the performance and availability measurements from a single universal resource locator (URL) system, and dynamically creating a configuration file based on the performance and availability measurements, preferably in the Javascript language, on said universal resource locator (URL) system for selection said firewall server.

However, Dantressangle teaches a method wherein one or more virtual browsers are created for transmitting commands to test a server computer (see abstract). Dantressangle teaches the limitation of:

processing the performance and availability measurements from a single universal resource locator (URL) system (col. 5, lines 26-65; Dantressangle discloses testing the accessibility and responsiveness of a single web server); and

dynamically creating a configuration file based on the performance and availability measurements on said universal resource locator (URL) system (col. 6, lines 22-52; Dantressangle discloses that a results file is generated by the web server based on its performance).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ahuja in view of Dantressangle to collect and process performance data using a single URL system. One would be motivated to do so to enable users to create tests for a particular web server environment.

As to claim 8, as best understood, the Ahuja teaches the method of claim 7 above.

Ahuja fails to teach the limitation wherein the configuration file is processed by a common gateway interface (CGI).

However, Dantressangle teaches a method wherein one or more virtual browsers are created for transmitting commands to test a server computer (see abstract). Dantressangle teaches the limitation wherein the configuration file is processed by a common gateway interface (CGI) (col. 3, line 49 – col. 4, line 25; Dantressangle discloses that the web server, which generates the results file, conforms to CGI standards).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ahuja in view of Dantressangle to process the performance and availability data by

a CGI. One would be motivated to do so since CGI is a widely used standard interface for web servers.

As to claim 9, as best understood, the Ahuja teaches the method of claim 8 above.

Ahuja fails to teach the limitation wherein the method further comprises downloading the configuration file to the web browser.

However, Dantressangle teaches a method wherein one or more virtual browsers are created for transmitting commands to test a server computer (see abstract). Dantressangle teaches the limitation of downloading the configuration file to the web browser (col. 6, lines 22-34; Dantressangle discloses that the web server transmits the test results to the web browser).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ahuja in view of Dantressangle to download the performance and availability related data to the web browser. One would be motivated to do so that the client may make routing decisions based on the data, as well as for system diagnostic purposes.

As to claim 10, as best understood, the Ahuja teaches the method of claim 9 above, further comprising periodically measuring performance and availability, selecting a firewall server, and downloading the configuration file to the web client. (col. 4, line 64 – col. 5, line 45; Ahuja discloses the periodic collection of performance data and selection of a preferred server by a client agent at the site of the client computer).

As to claim 11, the Ahuja teaches the method of claims 1 or 3 above.

Ahuja teaches the limitation wherein the method further comprises the steps of pre-selecting a backup firewall server in a background process, and switching to said backup

firewall server in case of failure of the selected firewall server (col. 5, lines 11-20; Ahuja discloses that if the selected server is nonresponsive, the request is redirected to an alternate server).

As to claim 12, as best understood, the Ahuja teaches the method of claims 1 or 3 above.

Ahuja teaches the limitation wherein the step of selecting a firewall server according to performance and availability measurements comprises the further step of selecting the firewall server according to the Internet Protocol (IP) address (col. 6, lines 25-67; Ahuja discloses that a one-to-many mapping is provided between a host name and the IP numbers of the servers in the server pool, to allow the client to establish connection with a particular server in a transparent manner).

Claims 14-19 represent program claims that correspond to method claims 1-6. They do not teach or define any new limitations above claims 1-6, and therefore are rejected for similar reasons.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lesa Kennedy whose telephone number is (703)305-8865. The examiner can normally be reached Monday-Friday, 8:30 – 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3719.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Lesa Kennedy
Art Unit 2157